

*Attorney Docket OHG 135***IN THE CLAIMS**

1. (currently amended): A method for maintaining a clean surface of a semiconductor substrate, prior to a subsequent high-temperature wafer processing step involving a high temperature of heat treatment, comprising, in sequence:

washing the semiconductor substrate so as to make the surface clean; ~~[[and]]~~

depositing a high molecular-weight straight-chain organic compound, having a boiling point lower than the high temperature of heat treatment of the wafer processing ~~of the subsequent step~~, onto the clean surface of said semiconductor substrate ~~during or after washing of said semiconductor substrate~~;

leaving the substrate to stand in air containing ambient organic substances, the air being at a low temperature lower than the boiling point; and

performing the high-temperature step;

wherein the ambient organic substances are prevented from adsorbing onto the cleaned surface of the substrate, prior to the high-temperature step, by the high molecular-weight straight-chain organic compound.

2. (currently amended): The semiconductor substrate surface protection method according to claim 1 wherein said high molecular-weight straight-chain organic compound is selected from substances of ~~lower~~ boiling point lower than 500°C.

3. (currently amended): The semiconductor substrate surface protection method according to claim 1 wherein said high molecular-weight straight-chain organic compound is a compound of a single type.

4. (currently amended): The semiconductor substrate surface protection method according to claim 1 wherein said high molecular-weight straight-chain organic compound is cholesterol ($C_{27}H_{46}O$).

5. (currently amended): The semiconductor substrate surface protection method according to claim 1 wherein said high molecular-weight straight-chain organic compound is behenic acid ($C_{21}H_{43}COOH$).

6. (currently amended): The semiconductor substrate surface protection method according to claim 1 wherein, after deposition of said high molecular-weight straight-chain

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organic compound onto the clean surface of the semiconductor substrate, said high molecular-weight straight-chain organic compound is further eliminated by the heat treatment temperature.

7. (currently amended): A method for maintaining a clean surface of a semiconductor substrate, prior to a subsequent high-temperature wafer processing step involving a high temperature of heat treatment, comprising, in sequence:

washing the semiconductor substrate so as to make the surface clean; ~~[[and]]~~

depositing a high molecular-weight straight-chain organic compound, having a boiling point lower than the high temperature of heat treatment of the wafer processing ~~of the~~ subsequent step, onto the clean surface of said semiconductor substrate by spin coating in which liquid containing the high molecular-weight straight-chain organic compound and pure water is discharged from a spray nozzle while rotating the semiconductor substrate ~~during or after~~ washing of said semiconductor substrate;

leaving the substrate to stand in air containing ambient organic substances, the air being at a low temperature lower than the boiling point; and

performing the high-temperature step;

wherein the ambient organic substances are prevented from adsorbing onto the cleaned surface of the substrate, prior to the high-temperature step, by the high molecular-weight straight-chain organic compound.

8. (currently amended): The semiconductor substrate surface protection method according to claim 7 wherein said high molecular-weight straight-chain organic compound is selected from substances of boiling point lower than 500°C.

9. (currently amended): The semiconductor substrate surface protection method according to claim 7 wherein said high molecular-weight straight-chain organic compound is a compound of a single type.

10. (currently amended): The semiconductor substrate surface protection method according to claim 7 wherein said high molecular-weight straight-chain organic compound is cholesterol ($C_{27}H_{46}O$).

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11. (currently amended): The semiconductor substrate surface protection method according to claim 7 wherein said high molecular-weight straight-chain organic compound is behenic acid ($C_{21}H_{43}COOH$).

12. (currently amended): The semiconductor substrate surface protection method according to claim 7 wherein, after deposition of said high molecular-weight straight-chain organic compound onto the clean surface of the semiconductor substrate, said high molecular-weight straight-chain organic compound is further eliminated by the heat treatment temperature.

13.-18. (canceled)

19. (currently amended): The semiconductor substrate surface protection method according to claim 1, wherein the subsequent high-temperature step includes one of thermal oxidation and reduced pressure CVD.

20. (currently amended): The semiconductor substrate surface protection method according to claim 1, wherein the step of leaving the substrate to stand in air comprises comprising keeping the substrate in a clean room containing ambient organic compounds having a molecular weight lower than that of the high molecular-weight straight-chain organic compound.

21. (currently amended): The semiconductor substrate surface protection method according to claim 7, wherein the subsequent high-temperature step includes one of thermal oxidation and reduced pressure CVD.

22. (currently amended): The semiconductor substrate surface protection method according to claim 7, wherein the step of leaving the substrate to stand in air comprises comprising keeping the substrate in a clean room containing ambient organic compounds having a molecular weight lower than that of the high molecular-weight straight-chain organic compound.

23. (currently amended): A method of keeping ambient organic compounds in [[a]] clean room air containing the ambient organic substances from adhering to an already cleaned semiconductor substrate, comprising

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uniformly depositing onto the substrate a straight-chain organic compound having a higher molecular weight than that of the ambient organic compounds, whereby adsorption of the ambient organic compounds is abruptly reduced;

wherein the straight-chain organic compound has a boiling point lower than a temperature of a heat treatment of a wafer-processing subsequent step, whereby the straight-chain organic compound is not left behind as a residue on the substrate.

24. (previously presented): The method according to claim 23, wherein the straight-chain organic compound does not contain unsaturated bonds.

25. (previously presented): The method according to claim 23, wherein the straight-chain organic compound comprises a single straight-chain organic compound.

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